



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,326	02/26/2002	James W. O'Toole JR.	CIS01-39(5199)	4099

7590 05/27/2005

Barry W. Chapin, Esq.
CHAPIN & HUANG, L.L.C.
Westborough Office Park
1700 West Park Drive
Westborough, MA 01581

EXAMINER

DOAN, DUYEN MY

ART UNIT	PAPER NUMBER
----------	--------------

2143

DATE MAILED: 05/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/083,326

Applicant(s)

O'TOOLE ET AL.

Examiner

Duyen M. Doan

Art Unit

2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

D

S-O-O

Detail Action

Claims 1-35 are presented for examination.

Claim Objections

Claims 1-29 are objected to because of the following informalities: for example in claim 1 the heading "(method in device that originates location request message)", claim 2, the heading "LRM"... claims 1-29 are not in the appropriate claim format. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 11-15, 17-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Girerd et al (us pat 6661372) (hereinafter Girerd) in view of Johnson (us pat 5771280).

As regarding claim 1, Girerd discloses transmitting a location request message onto a network towards the target device, the location request message requesting location information in relation to the target device (col.2, lines 19-61); receiving a location signature message (col.2, lines 19-61, col.5, lines 6-40), processing the location information for at least one of the location information services in the location

Art Unit: 2143

signature message to derive a location of the target device in relation to at least one desired location granularity (col.5, lines 5-67, col6, lines 1-35).

Girerd does not expressly disclose the location signature message containing location information associated with a plurality of different location information services, each location information service providing location information having a different location granularity in relation to the target device.

Johnson discloses Girerd does not expressly disclose the location signature message containing location information associated with a plurality of different location information services, each location information service providing location information having a different location granularity in relation to the target device (col.2, lines 23-30, lines 55-67, col.3, lines 1-10, col.12, lines 15-16).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine the teaching of Johnson to the method of Girerd to have the request message contained parameters so that the target device can respond to those parameters with different location granularity for the purpose of the best or most appropriate map that is automatically selected base on location of requester and requestee and avoiding delay (see Johnson col.1, lines 60-63, col.2, lines 62-67).

As regarding claim 2, Girerd-Johnson disclose the location request message contains a specification of location information parameters that identify different types of location information requested by the location request message, each different type of location information corresponding to location information that can be provided from a different location information service (see Johnson col.2, lines 54-67, col.3, lines 1-11,

Art Unit: 2143

col12, lines 15-16). The same motivation was utilized in claim 1 applied equally well to claim 2.

As regarding claim 11, Girerd-Johnson disclose retrieving, from the location signature message, first location information having a first location granularity in relation to the target device (see Girerd col.5, lines 5-67, col.6, lines 1-65, refine the position calculation of the remote sensor); retrieving, from the location signature message, second location information having a second location granularity in relation to the target device (see Girerd col.5, lines 5-67, col.6, lines 1-65, refine the position calculation of the remote sensor); analyzing the first location information and the second location information to determine a location of the target device based on the first and second location information (see Girerd col.5, lines 5-67, col.6, lines 1-65, refine the position calculation of the remote sensor).

As regarding claim 12, Girerd-Johnson disclose the location request message includes a specification of location information parameters that identify location information that may be available from location information services to nodes in the network existing on a path between the location requesting device and the target device (see Girerd col.2, lines 19-61, col.5, lines 5-67); and wherein the location signature message contains location information corresponding to respective location parameters that have a value indicating that the location requesting device is requesting that location information and for which nodes in the network existing on the path between the location requesting device and the target device are capable of access the location

information from a location information service corresponding to the respective location parameters (see Girerd col.2, lines 19-61, col.5, lines 5-67).

As regarding claim 13, Girerd-Johnson disclose the different portions of location information corresponding to different location information services provide different location granularities with respect to the location of the target device, the different location granularities including at least one of postal location information, phone number information, global positioning information, and network location information (see Johnson col.11, lines 47-67). The same motivation was utilized in claim 1 applied equally well to claim 13.

As regarding claim 14, Girerd discloses detecting a requirement to provide location information on behalf of a location requesting device (see Girerd col.5, lines 11-67, col.6, lines 1-35); in response to the step of detecting, creating a location signature message (see Girerd col.5, lines 11-67, col.6, lines 1-35), and forwarding the location signature message onto the network to a location signature message destination (see Girerd col.2, lines 9-61 col.5, lines 11-67, col.6, lines 1-35).

Girerd does not expressly disclose the location signature message containing location information associated with a plurality of location information services accessible to the node, each location information service providing location information having a different location granularity in relation to a target device.

Johnson teaches Girerd does not expressly disclose the location signature message containing location information associated with a plurality of location information services accessible to the node, each location information service providing

Art Unit: 2143

location information having a different location granularity in relation to a target device (col.2, lines 23-30, lines 55-67, col.3, lines 1-10, col.12, lines 15-16).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine the teaching of Johnson to the method of Girerd to have the request message contained parameters so that the target device can respond to those parameters with different location granularity for the purpose of the best or most appropriate map that is automatically selected base on location of requester and requestee and avoiding delay (see Johnson col.1, lines 60-63, col.2, lines 62-67).

As regarding claim 15, Girerd-Johnson discloses receiving, on the network, a location request message containing a specification of location information parameters that identify different types of location information, that can be provided from different location information services, and which, if accessible to the node, are to be inserted into a location signature message for forwarding onto the network to the location signature message destination (see Girerd col.5, lines 61-67, col.6, lines 1-35).

As regarding claim 17, Girerd-Johnson disclose detecting that the location request message includes an indication that separate location signature messages are to be sent to the location signature message destination, and in response to the step of detecting, forwarding the location request message onto the network towards the target device specified by the target device identifier and proceeding to process the steps of creating a location signature message and forwarding the location signature message onto the network to a location signature message destination, such that the location signature message destination receives a separate location signature message from

Art Unit: 2143

each node that detects a requirement to provide location information (see Girerd, col.5, lines 1-67, col.6, lines 1-35, col.2, lines 19-61).

As regarding claim 18, Girerd-Johnson discloses receiving a first location signature message, the first location signature message containing a specification of location information parameters that identify different types of location information, that can be provided from different location information services, and which, if accessible to the node; are to be inserted into the location signature message created in the step of creating for forwarding onto the network to the location signature message destination (see Girerd col.2, lines 19-61, col5, lines 1-67).

As regarding claims 19, the limitations are similar to claim 11, therefore rejected for the same rationale as claim 11.

As regarding claim 20, Girerd-Johnson disclose obtaining location information relative to the node from each accessible location information service specified in a specification of location information parameters; and inserting the location information from each accessible location information service into the location signature message (see Girerd col.5, line s1-67).

As regarding claim 21, Girerd-Johnson disclose placing an identity of the node into the location signature message in order to associate the location information obtained by the node for all location information services accessible to the node with the identity of the node (see Girerd col.5, line s1-67, col.6, lines 1-35).

As regarding claim 22, Girerd-Johnson disclose the location information obtained from each location information service corresponds to location information

Art Unit: 2143

obtained from those location information services that are accessible to the node for each respective location information parameter specified in a specification of location information parameters (see Girerd, col.5, lines 1-67, col.6, lines 1-35).

As regarding claim 23, Girerd-Johnson disclose the location information obtained from different location information services provides a different granularity of location with respect to the location of the node in relation to the target device (see Johnson col.2, lines 23-30, lines 55-67, col.3, lines 1-10, col.12, lines 15-16). The same motivation was utilized in claim 14 applied equally well to claim 23.

As regarding claim 24, Girerd-Johnson disclose obtaining at least one location information modification factor that corresponds to at least one location information service specified in the specification of location information parameters (see Girerd col.5, lines 1-67, col.6, lines 1-35); and applying the at least one location information modification factor to corresponding location information obtained from the location information service in order to modify values of the location information from the location information service (see Girerd col.5, lines 1-67, col.6, lines 1-35).

As regarding claim 25, Girerd-Johnson disclose associating a node signature to the location information contained in the location signature message such that the identity of the node associated with the location information can be verified by a recipient of the location information (see Girerd col.2, lines 19-61).

As regarding claim 26, Girerd-Johnson a destination of the location signature message is a location requesting device (see Girerd, col.2, lines 19-61).

Art Unit: 2143

As regarding claim 27, Girerd-Johnson discloses a destination of the location signature message is a target device (see Girerd col.2, lines 19-67).

As regarding claim 28, Girerd-Johnson disclose the destination of the location signature message is a beacon device (see Girerd col.3, lines 65-67, col.4, lines 1-67).

As regarding claim 29, Girerd-Johnson disclose determining if the value of the time to return identifier indicates that a location signature message has propagated on the network far enough towards a beacon device; and if the value of the time to return identifier indicates that the location signature message has propagated on the network far enough towards a beacon device, redirecting the location signature message towards a location information destination (see Girerd col.3, lines 65-67, col.4, lines 1-67, col.5, lines 1-67).

Claims 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Girerd et al (us pat 6661372) and Johnson (us pat 5771280) as applied to claim 1 above, and further in view of Jones (us pat 6748318).

As regarding claim 3, Girerd-Johnson disclose all the limitations of claim 1 above and configuring the specification of location information parameters in the location request message to include a specification of a location information parameter for each type of location information that is to be returned in the location signature message from a corresponding location information service (see Girerd col.5, lines 5-67, col.6, lines 1-35) but the combination of Girerd-Johnson does not disclose calculating a value for the time to return identifier based upon a propagation distance

between the location requesting device and the target device, the value for the time to return identifier indicating a metric that determines how close the location request message is propagated in the network towards the target device before a node in the network that receives the location request message cancels propagation of the location request message and produces a location signature message that is returned to the location requesting device ; and forwarding the location request message onto the network towards the target device specified by the target device identifier.

Jones teaches calculating a value for the time to return identifier based upon a propagation distance between the location requesting device and the target device, the value for the time to return identifier indicating a metric that determines how close the location request message is propagated in the network towards the target device before a node in the network that receives the location request message cancels propagation of the location request message and produces a location signature message that is returned to the location requesting device (see Jones col.4, lines 50-64, col.2, lines 46-54); and forwarding the location request message onto the network towards the target device specified by the target device identifier (see Jones col.5, lines 55-67, col.6, lines 1-35).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine the teaching of Jones to the method of Girerd-Jonhson to have calculate the time to return for the purpose of utilizing the vehicle communication mechanism with eh time elapsed or traveled distance of the vehicle at any of the particular position and to advance notification systems and methods for

Art Unit: 2143

notifying users in advance of the impending arrival of a vehicle or user (see Jones col.1, lines 43-49, col.3, lines 52-61).

As regarding claim 4, Girerd-Johnson-Jones disclose setting the value of the time to return identifier to a total of the propagation distance between the location requesting device and the target device, such that the step of transmitting the location request message onto the network towards the target device causes nodes in the network to propagate the location request message to the target device, and such that the target device creates a location signature message for return to the location requesting device (see Jones col.4, lines 50-64, col.5, lines 38-47, col.17, lines 11-58). The same motivation was utilized in claim 3 applied equally well to claim 4.

As regarding claim 5, Girerd-Johnson-Jones disclose setting the value of the time to return identifier to be less than a total of the propagation distance between the location requesting device and the target device, such that the step of transmitting the location request message onto the network towards the target device causes nodes in the network to propagate the location request message a distance less than required to reach the target device, and such that a node in the network other than the target device creates a location signature message for return to the location requesting device (see Johnson col.2, lines 56-67, col.3, lines 1-49).

As regarding claim 6, Girerd-Johnson-Jones disclose setting a location information parameter for each type of location information that is to be returned, in the location signature message, from a corresponding location information service that is accessible to each node in the network, such that each node in the network that is

Art Unit: 2143

capable of producing a location signature message containing location information for that location parameter provides such location information in a location signature message in response to receiving the location request message (see Girerd, col.4, lines 1-67, col.9, lines 20-41).

As regarding claim 7, Girerd-Johnson-Jones disclose the location request message includes at least one modification factor corresponding to at least one location parameter in the specification of location information parameters, and wherein the step of configuring the specification of location information parameters (see Girerd col.5, lines 1-67) comprises the step of setting the at least one modification factor corresponding to the at least one location parameter to a value by which a node in the network, that provides location information corresponding to that location parameter in the location signature message, is to modify that location information (see Girerd col.5, lines 1-67).

As regarding claim 8, Girerd-Johnson-Jones disclose receiving a location signature message that includes location information that is modified according to the at least one modification factor corresponding to the at least one location parameter associated with that location information (see Girerd col.5, lines 1-67).

Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Girerd and Johnson as applied to claim 1 above, and further in view of Hickman et al (us pat 5581261) (hereinafter Hickman).

As regarding claim 9, Girerd-Johnson disclose all limitations of claim 1 above but does not disclose the location signature message contains location information inserted into the location signature message from a plurality of different nodes in a communications network, each node having a different location proximity to the target device.

Hickman teaches the location signature message contains location information inserted into the location signature message from a plurality of different nodes in a communications network, each node having a different location proximity to the target device (see Hickman col.5, lines 28-67, col.6, lines 1-67).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine the teaching of Hickman to the method of Girerd-Johnson to have the different nodes to determine the precise geographic location (see Hickman col.2, lines 54-61).

As regarding claim 10, Girerd-Johnson-Hickman at which the location request message is received on a network path from the location requesting device to the target device (see Girerd col.2, lines 18-61, col.5, lines 1-67); ii) which is capable of responding to the location request message with a location signature message (see Girerd col.2, lines 18-61, col.5, lines 1-67); and iii) for which location information is accessible by that node from a respective location information service that corresponds to a respective location information parameter specified in the location request message (see Girerd col.2, lines 18-61, col.5, lines 1-67). The same motivation was utilized in claim 9 applied equally well to claim 9.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Girerd and Johnson as applied to claim 14 above, and further in view of Collomby (us pat 6188719).

As regarding claim 16, Girerd-Johnson disclose all limitations of claim 14 above, but do not disclose adjusting a value of the time to return identifier in the location request message; determining if the value of the time to return identifier indicates that the location request message has propagated on the network far enough towards the target device; and if the value of the time to return identifier indicates that the location request message has propagated on the network far enough towards the target device, canceling propagation of the location request message towards the target device; and if the value of the time to return identifier indicates that the location request message has not propagated on the network far enough towards the target device, forwarding the location request message onto the network towards the target device specified by the target device identifier

Collomby teaches adjusting a value of the time to return identifier in the location request message; determining if the value of the time to return identifier indicates that the location request message has propagated on the network far enough towards the target device; and if the value of the time to return identifier indicates that the location request message has propagated on the network far enough towards the target device, canceling propagation of the location request message towards the target device; and

Art Unit: 2143

if the value of the time to return identifier indicates that the location request message has not propagated on the network far enough towards the target device, forwarding the location request message onto the network towards the target device specified by the target device identifier (see Collomby col.6, lines 7-37).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine the teaching of Collomby to the method of Girerd-Johnson to modify the time to return in the request message for the purpose of determining the location of the beacon device (see Collomby col.6, lines 7-37).

As regarding claims 30-35, the limitations are similar to claims 1-13, therefore rejected for the same rationales as claims 1-13.

Art Unit: 2143

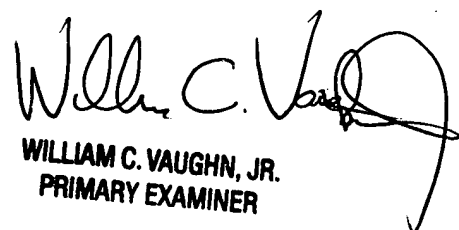
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duyen M. Doan whose telephone number is (571) 272-4226. The examiner can normally be reached on 9:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner
Duyen Doan
Art unit 2143

DD


WILLIAM C. VAUGHN, JR.
PRIMARY EXAMINER

26 May 05